



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,360	09/24/2003	Maki Ohyama	243080US2	4700
22850 7590 03/29/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER DULANEY, BENJAMIN O				
ART UNIT		PAPER NUMBER		
2625				
NOTIFICATION DATE		DELIVERY MODE		
03/29/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/668,360

Applicant(s)

OHYAMA ET AL.

Examiner

BENJAMIN O. DULANEY

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-52 and 54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-52 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 2/19/10 have been fully considered but they are not persuasive.

Regarding applicant's argument on page 11 that Levin does not teach a printer that "forms an image ... based on the stored image data in the first format ... whenever the printer engine forms the image", examiner disagrees. Applicant seems to suggest that since Levin has a specialized method for printing scanned images (branch yes at item 56) as well as a standard well-known method for copying (branch no at item 56), that the claimed features cannot be met because only one of the methods specifically teaches the "first format". This is an incorrect interpretation of the Levin reference, as well as an incorrect interpretation of applicant's own claim in that "a printer engine that forms *an* image" refers, not, to all images that are ever to be printed on the engine as the arguments seem to suggest, but merely a single image of one scan/copy job. This is an important distinction because "whenever the printer engine forms the image" is interpreted by the examiner as referring to the printings of one or more copies of the same image within one scan/copy job. Since Levin teaches in paragraph 13 that the specialized method (branch yes at item 56) is utilized when auto-sizing or auto-cloning is chosen by an operator, this means that for a single job the answer to branch 56 for every loop of figure 2A is either always yes (if auto-sizing or auto-cloning is chosen) or always no (if auto-sizing or auto-cloning is not chosen). Therefore, in the case that auto-sizing or auto-cloning is chosen, Levin teaches the color correction of data into the

first format, and also teaches that this data in a first format is repeatedly printed in that first format within the specific one job for however many copies are selected. Therefore the disputed features are taught.

Regarding applicant's argument that Koguchi and Levin are not properly combined, examiner disagrees. The invention of Koguchi teaches an MFP apparatus (figure 1, item 10) that, by this specific invention, is mainly used for transmission of scanned documents to other devices. That does not mean, however, that Koguchi would be incapable of printing a document at the MFP 10 that was also scanned by MFP 10. Indeed Koguchi discloses in paragraph 62 that MFP 10 contains a printing unit that "prints data in accordance with the prescribed parameters". Since Koguchi, in an attempt to save processing power and time when scanning, does not perform color correction at the time of scanning (because the invention is geared towards transmission of the document and not printing it locally), the method of Levin could be used in a simple substitution of one known element (no color correction when scanning) for another known element (performing color correction RGB->CMYK at scan time) to produce the predictable result of Koguchi performing color correction at the time of scanning to produce a first format. Therefore the combination of Koguchi and Levin is valid and the argument is overcome.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1) Claims 24-27, 29, 30, 32-36, 38, 43, 45-50, 52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent application publication 2002/0141380 by Koguchi, and further in view of U.S. patent application publication 2002/0149784 by Levin et al.
- 2) Regarding claim 24, Koguchi teaches an image processing apparatus comprising: a memory that stores the image data in a first format (paragraph 76); a format converter that converts the first format of the image data stored to a second format (paragraph 101) that is compatible with an external device based on predetermined conditions set in the image processing apparatus (paragraphs 109 and 110; second format choice by remote user is based upon the available formats set in MFP 10 and sent out in email 70 of figure 8 to the remote user for replying); a connecting unit that connects with a network, wherein the external device is connected to the network; and a transmitter that transmits the image data in the second format to the external device via the connection unit (paragraph 102).

Koguchi does not specifically teach storing data following scanning correction which includes conversion from red, green, and blue (RGB) to cyan, magenta, yellow, and black (CMYK); and a printer engine that forms an image on a recording medium

based on the stored image data in the first format, without performing additional color conversion, whenever the printer engine forms the image on the recording medium.

Levin teaches storing data following scanning correction which includes conversion from red, green, and blue (RGB) to cyan, magenta, yellow, and black (CMYK) (figure 2, item 60; paragraph 15; color conversion is front-end processing and is performed when the size of a document must be determined at item 56); and a printer engine that forms an image on a recording medium based on the stored image data in the first format, without performing additional color conversion, whenever the printer engine forms the image on the recording medium (figure 2b, item 90; printing is performed without further color conversion).

Koguchi and Levin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Levin to add converting from RGB to CMYK at the time of scanning. The method of Levin could be used in a simple substitution of one known element (no color correction when scanning) for another known element (performing color correction RGB->CMYK at scan time) to produce the predictable result of Koguchi performing color correction at the time of scanning to produce a first format. Therefore it would have been obvious to combine Koguchi and Levin to obtain the invention as specified by claim 24.

- 3) Regarding claim 25, Koguchi teaches the image processing apparatus according to claim 1, further comprising an image reader that reads an image on a document to thereby acquire the image data corresponding to the image (paragraph 75).
- 4) Regarding claims 26 and 48, Koguchi teaches the image processing apparatus according to claim 1, wherein the second format is a general format that is acceptable to a general information processing unit (figure 8; PDF is a general format).
- 5) Regarding claims 27 and 49, Koguchi teaches the image processing apparatus according to claim 1, wherein the image data stored in the first format and converts to the second format (figure 8; converting to and from JPEG performs expansion and compression).

Koguchi does not specifically teach the format converter includes a compressor that compresses the image data stored and an expander that expands the compressed image data stored in the first format, and the format converter expands the compressed first format.

Levin teaches the format converter includes a compressor that compresses the image data stored (paragraph 15; data is compressed) and an expander that expands the compressed image data stored in the first format, and the format converter expands the compressed first format (paragraph 19; data is decompressed).

Koguchi and Levin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Levin to add compression. The

motivation for doing so would have been to save storage space. Therefore it would have been obvious to combine Koguchi and Levin to obtain the invention as specified by claims 27 and 49.

6) Regarding claims 29 and 50, Koguchi teaches the image processing apparatus according to claim 1, wherein the format converter includes a resolution converter that converts resolution of the image data stored to a predetermined value, and the format converter converts the first format of the image data resolution converted to the second format (paragraph 83).

7) Regarding claim 30, Koguchi teaches the image processing apparatus according to claim 6, further comprising a resolution setting unit that sets the predetermined value (paragraph 83).

8) Regarding claim 32, Koguchi teaches the image processing apparatus according to claim 1, wherein the format converter converts the first format of the image data stored to the second format based on any one or more of an attribute of the image data stored and information obtained from the external device (paragraph 83).

9) Regarding claim 33, Koguchi teaches the image processing apparatus according to claim 1, further comprising an image forming unit that forms an image on a recording medium based on the image data stored, wherein the format converter converts the first format of the image data stored to a third format that is acceptable to the image forming unit (paragraph 103; figure 8; multiple formats are listed that can be continually converted from/to).

10) Regarding claim 34, Koguchi teaches the image processing apparatus according to claim 10, wherein the predetermined conditions are set based on information obtained from the external device (paragraph 83).

11) Regarding claim 35, Koguchi teaches the image processing apparatus according to claim 10, further comprising an operating unit that specifies the predetermined conditions and the external device (paragraph 72-75).

12) Regarding claim 36, Koguchi teaches the image processing apparatus according to claim 1, wherein the image data in the first format is an image data in a predetermined color-space, and the image data in the second format is an image data in monochrome (paragraph 75 and 83).

13) Regarding claim 38, Koguchi teaches the image processing apparatus according to claim 1, wherein the format converter includes a filter that filters the image data stored, and the format converter converts the first format of the image data filtered to the second format (paragraph 101; and format/resolution/color change would involve "filtering" the data into a different form of the data).

14) Regarding claim 43 and 52, Koguchi teaches the image processing apparatus according to claim 1, wherein the format converter includes a color correction unit that carries out color correction of the image data stored, and the format converter converts the first format of the image data color corrected to the second format (paragraph 101; changing from color to monochromatic is a color correction).

15) Regarding claim 45, Koguchi teaches the image processing apparatus according to claim 1, further comprising: an image quality mode setting unit that sets an image

quality mode of the image data that is to be stored in the memory; and a color correction parameter changer that changes a color correction parameter for the color correction according to the set image quality mode (paragraph 83).

16) Regarding claim 46, Koguchi teaches the image processing apparatus according to claim 1, wherein the format converter further includes a format setting unit that specifies the second format (paragraph 83).

17) Regarding claims 47 and 54, Koguchi teaches a method of processing image data, comprising: reading an image on a document to thereby acquire image data corresponding to the image (paragraph 74), the image data being in a first format; storing the image data in an image processing apparatus (paragraph 76); converting the first format of the image data stored to a second format (paragraph 101) that is compatible with an external device based on predetermined conditions set in the image processing apparatus (paragraphs 109 and 110; second format choice by remote user is based upon the available formats set in MFP 10 and sent out in email 70 of figure 8 to the remote user for replying); and transmitting the image data in the second format to the external device (paragraph 102).

Koguchi does not specifically teach performing scanning correction which includes conversion from red, green, and blue (RGB) to cyan, magenta, yellow, and black (CMYK); storing the acquired and scan corrected image data, in the first format; and forming an image on a recording medium based on the stored image data in the first format without performing additional color conversion, whenever the image processing apparatus forms the image on the recording medium.

Levin teaches performing scanning correction which includes conversion from red, green, and blue (RGB) to cyan, magenta, yellow, and black (CMYK); storing the acquired and scan corrected image data, in the first format (figure 2, item 60; paragraph 15; color conversion is front-end processing and is performed when the size of a document must be determined at item 56); and forming an image on a recording medium based on the stored image data in the first format without performing additional color conversion, whenever the image processing apparatus forms the image on the recording medium (figure 2b, item 90; printing is performed without further color conversion).

Koguchi and Levin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Levin to add converting from RGB to CMYK at the time of scanning. The method of Levin could be used in a simple substitution of one known element (no color correction when scanning) for another known element (performing color correction RGB->CMYK at scan time) to produce the predictable result of Koguchi performing color correction at the time of scanning to produce a first format. Therefore it would have been obvious to combine Koguchi and Levin to obtain the invention as specified by claims 47 and 54.

18) Claims 28, 31, 39-42, 44 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent application publication 2002/0141380 by Koguchi, and

further in view of U.S. patent application publication 2002/0149784 by Levin et al., and further in view of U.S. patent 7,352,488 by Ben-Chorin et al.

19) Regarding claim 28, Koguchi does not specifically teach the image processing apparatus according to claim 24, wherein the format converter includes a multinary converter that increases number of gradations of the image data stored to thereby obtain multinary image data, and the format converter converts the first format of the multinary image data to the second format.

Ben-Chorin teaches the image processing apparatus according to claim 24, wherein the format converter includes a multinary converter that increases number of gradations of the image data stored to thereby obtain multinary image data, and the format converter converts the first format of the multinary image data to the second format (column 18, lines 8-10).

Koguchi and Ben-Chorin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Ben-Chorin to add increasing gradations. The motivation for doing so would have been to better spectrally match colors for images to be printed (column 6, lines 52-53). Therefore it would have been obvious to combine Koguchi and Ben-Chorin to obtain the invention as specified by claim 28.

20) Regarding claim 31, Koguchi does not specifically teach the image processing apparatus according to claim 24, wherein the image data stored is color data and the format converter includes a color-space converter that converts color-space of the

image data, and the format converter converts the first format of the image data color-space converted to the second format.

Ben-Chorin teaches the image processing apparatus according to claim 24, wherein the image data stored is color data and the format converter includes a color-space converter that converts color-space of the image data, and the format converter converts the first format of the image data color-space converted to the second format (Column 5, lines 55-65).

Koguchi and Ben-Chorin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Ben-Chorin to add color-space conversions. The motivation for doing so would have been to better spectrally match colors for images to be printed (column 6, lines 52-53). Therefore it would have been obvious to combine Koguchi and Ben-Chorin to obtain the invention as specified by claim 31.

21) Regarding claim 39, Koguchi does not specifically teach the image processing apparatus according to claim 24, wherein the format converter includes a half-tone processor that converts a gradation of the image data stored, and the format converter converts the first format of the image data gradation converted to the second format

Ben-Chorin teaches the image processing apparatus according to claim 24, wherein the format converter includes a half-tone processor that converts a gradation of

the image data stored, and the format converter converts the first format of the image data gradation converted to the second format (Column 2, lines 54-55).

Koguchi and Ben-Chorin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Ben-Chorin to add halftoning. The motivation for doing so would have been to better spectrally match colors for images to be printed (column 6, lines 52-53). Therefore it would have been obvious to combine Koguchi and Ben-Chorin to obtain the invention as specified by claim 39.

22) Regarding claim 40, Koguchi does not specifically teach the image processing apparatus according to claim 24, wherein the image data stored is colored, and the format converter includes a color-gray converter that converts a the colored image data into grey, and the format converter converts the first format of the grey image data to the second format.

Ben-Chorin teaches the image processing apparatus according to claim 24, wherein the image data stored is colored, and the format converter includes a color-gray converter that converts a the colored image data into grey, and the format converter converts the first format of the grey image data to the second format (column 3, lines 30-36).

Koguchi and Ben-Chorin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Ben-Chorin to add gray levels. The motivation for doing so would have been to better spectrally match colors for images to be printed (column 6, lines 52-53). Therefore it would have been obvious to combine Koguchi and Ben-Chorin to obtain the invention as specified by claim 40.

23) Regarding claims 41 and 51, Koguchi does not specifically teach the image processing apparatus according to claim 24, wherein the format converter includes a gamma correction unit that carries out gamma correction of the image data stored based on predetermined gamma correction data, and the format converter converts the first format of the image data gamma corrected to the second format.

Ben-Chorin teaches the image processing apparatus according to claim 24, wherein the format converter includes a gamma correction unit that carries out gamma correction of the image data stored based on predetermined gamma correction data, and the format converter converts the first format of the image data gamma corrected to the second format (column 20, lines 35-55).

Koguchi and Ben-Chorin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Ben-Chorin to add gamma correction. The motivation for doing so would have been to better spectrally match colors for images to be printed (column 6, lines 52-53). Therefore it would have been obvious to

combine Koguchi and Ben-Chorin to obtain the invention as specified by claims 41 and 51.

24) Regarding claim 42, Koguchi does not specifically teach the image processing apparatus according to claim 41, further comprising a gamma value setting unit that sets the gamma correction data.

Ben-Chorin teaches the image processing apparatus according to claim 41, further comprising a gamma value setting unit that sets the gamma correction data (column 20, lines 35-55).

Koguchi and Ben-Chorin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Ben-Chorin to add gamma correction. The motivation for doing so would have been to better spectrally match colors for images to be printed (column 6, lines 52-53). Therefore it would have been obvious to combine Koguchi and Ben-Chorin to obtain the invention as specified by claim 42.

25) Regarding claim 44, Koguchi does not specifically teach the image processing apparatus according to claim 43, wherein the image data is in CMYK color model, and the color correction includes conversion of the image data in the CMYK color model to an image data in RGB color model.

Ben-Chorin teaches the image processing apparatus according to claim 43, wherein the image data is in CMYK color model, and the color correction includes

conversion of the image data in the CMYK color model to an image data in RGB color model (Column 5, lines 55-65).

Koguchi and Ben-Chorin are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Ben-Chorin to add CMYK to RGB conversion. The motivation for doing so would have been to better spectrally match colors for images to be printed (column 6, lines 52-53). Therefore it would have been obvious to combine Koguchi and Ben-Chorin to obtain the invention as specified by claim 44.

26) Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent application publication 2002/0141380 by Koguchi, and further in view of U.S. patent application publication 2002/0149784 by Levin et al., and further in view of U.S. patent 6,069,706 by Kajita et al.

Regarding claim 37, Koguchi does not specifically teach the image processing apparatus according to claim 24, wherein the format converter includes a binary converter that converts the image data stored into binary image data, and the format converter converts the first format of the binary image data to the second format.

Kajita teaches the image processing apparatus according to claim 24, wherein the format converter includes a binary converter that converts the image data stored

into binary image data, and the format converter converts the first format of the binary image data to the second format (column 5, lines 59-67).

Koguchi and Kajita are combinable because they are both from the data formatting field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Koguchi with Kajita to add binary conversion. The motivation for doing so would have been to better spectrally match colors for images to be printed. Therefore it would have been obvious to combine Koguchi and Kajita to obtain the invention as specified by claim 37.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN O. DULANEY whose telephone number is (571)272-2874. The examiner can normally be reached on Monday - Friday (10am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Benjamin O Dulaney/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625